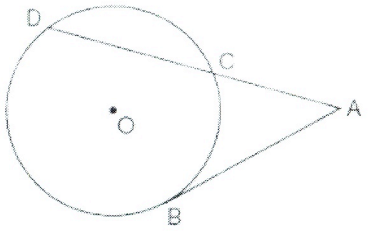
Geometry – Common Assessment #4 PRACTICE

Name_____

Period_____

1. In the accompanying diagram, tangent AB and secant AD are drawn to circle O from point A, AB = 8 and AC = 4. Find AD.



A. 5

C. 9

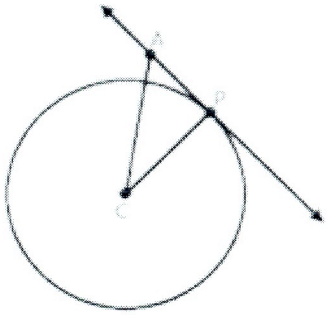
B. 16

D. 12

2. The number of common tangents that can be drawn for two externally tangent circles is _____.

A. 1 B. 2 C. 3 D. 4

3. Circle C has a radius of 6 inches. If AD is tangent to Circle C and AD = 3 inches, which of the following statements is **false**.



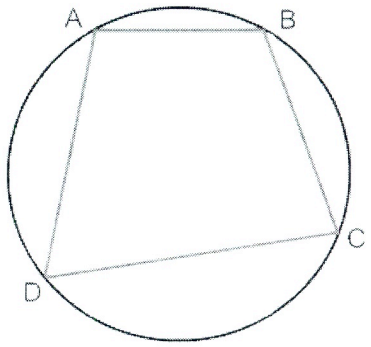
A. AC = 45

C. $AC^2 = AD^2 + DC^2$

B. AC > DC

D. $AC = 3\sqrt{5}$

4. Quadrilateral ABCD is inscribed in the circle. Angle B and Angle D have which kind of angle relationship?



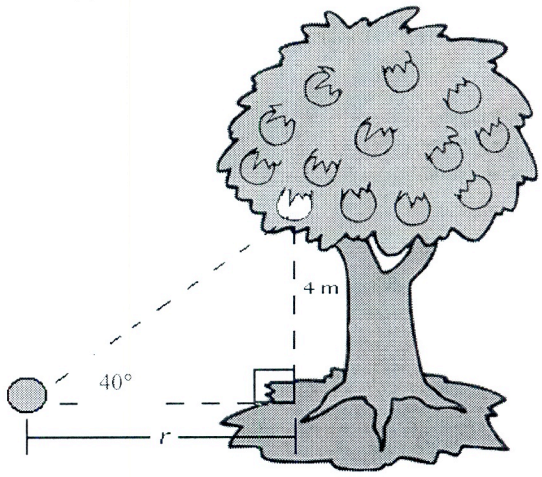
A. Vertical Angles

B. Complementary Angles

C. Supplementary Angles

D. Congruent Angles

position of the apple and the original position of the apple was 40°. How far, r, did the apple land from the base of the tree?



Note: picture not drawn to scale

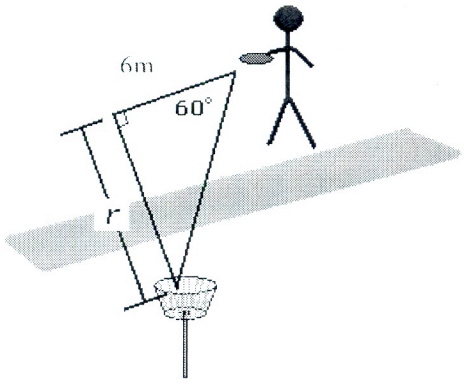
A. r = 6.97 m

B. r = 4.42 m

C. r = 4.77 m

D. r = 1.89 m

6. Jaime is playing disc golf. He is standing across a creek from the basket at a 60° angle. Which equation can be used to find the distance, *r*, between him and the basket if he were to walk 6 more meters?



Note: picture not drawn to scale

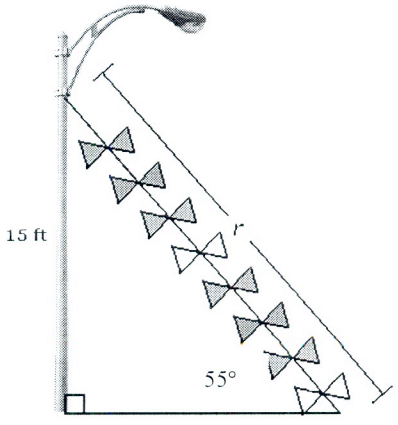
A. $\sin 60 = \frac{r}{6}$

B. $\tan 60 = \frac{r}{6}$

C. $\tan 60 = \frac{6}{r}$

D. $\cos 60 = \frac{r}{6}$

7. The manager of a gas station has attached a cable with flags on it to a light pole in order to attract more business. The cable is attached 15 feet above the base of the light and forms a 55° angle at the ground. How long is the cable to the nearest tenth of a foot?



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A. r = 26.1 feet

B. r = 18.3 feet

C. r = 20 feet

D. r = 10.5 feet

8. The angles of triangle *ABC* are in the ratio of 7:2:6. What is the measure of the *smallest* angle?

A. 12°

C. 24°

B. 36°

D. 72°

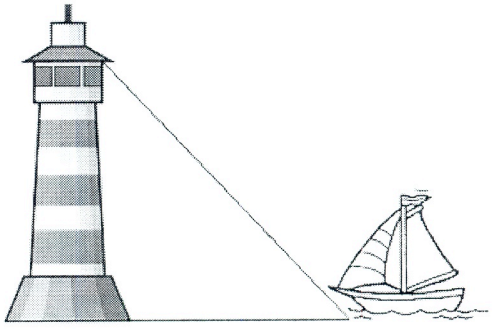
9. Daniel sees a lighthouse in the harbor. He estimates the angle of elevation is 40°. If Daniel is 218 feet from the top of the lighthouse, what is the approximate distance Daniel is from the bottom of the lighthouse? (Assume the lighthouse meets the ground at a right angle.)

A. 218 feet

B. 183 feet

C. 109 feet

D. 167 feet



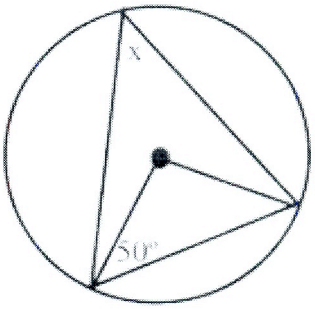
10. Given a circle with the center indicated, find x.

A. 100

C. 80

B. 50

D. 40



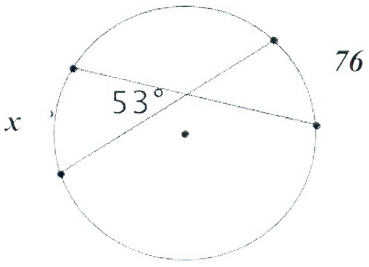
11. Two chords intersect within a circle to form an angle whose measure is 53°. If the intercepted arcs are represented by x and 76, Solve for x.

A. 9

C. 13

B. 30

D. 76



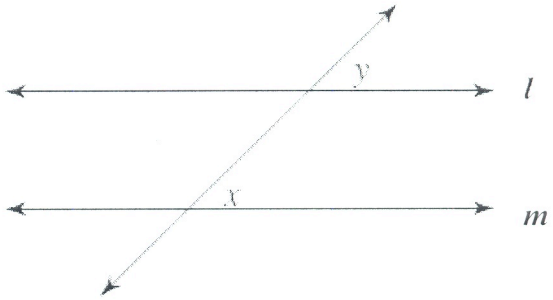
12. If angle $y = 2h + 50$ and angle $x = 4h + 20$, what value of h proves that $l \parallel m$?

A. 25

C. 10

B. 6.5

D. 28.3



13. Which statement is **true** about every parallelogram?

A. All four sides are congruent.

B. The interior angles are all congruent.

C. Two pairs of opposite sides are congruent.

D. The diagonals are perpendicular to each other.

14. Which set of numbers **does *not*** represent the sides of a right triangle?

A. 3, 4, 5

C. 6, 8, 10

B. 6, 8, 11

D. 9, 12, 15

15. What is the measure of **each** interior angle of a regular octagon?

A. 60°

C. 135°

B. 120°

D. 270°